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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/299,109 04/26/99 WINTERS

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EXAMINER

IM62/1201

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EL. ART. INT. 7  
ART UNIT

PAPER NUMBER

1746  
DATE MAILED:

12/01/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/299,109

Applicant(s)

Winters

Examiner

EL-Arini

Group Art Unit

1746

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 10/20/99
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-39 is/are pending in the application.
- Of the above claim(s) 22-39 is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-21 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of References Cited, PTO-892
- ☒ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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The abstract of the disclosure is objected to because it is directed to a method and a device for cleaning, and not to a method as claimed herein. It is suggested that in the abstract, line 1, "and a device" be deleted. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: In the specification, page 7, lines 15-16, "wherein the water pressure..... in accordance with claim 9" should be deleted. Also, at lines 20-21, "according to... claims 1-8", at line 22, "... in accordance with claim 10", and at line 29, "... with claim 11" should be deleted. Also, on page 8, lines 7-8, "... with claim 12", at lines 13-14, "... with claim 13", at lines 17-18, "... claim 14", and at lines 24-25, "... claim 15" should be deleted. Furthermore, on page 9, lines 1-2, "... claim 16", lines 5-6, "... claim 17", lines 12-13, "... claim 18", lines 17-18, "... claim 19" should be deleted.

Appropriate correction is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 6-7, "use is made of a nozzle device" is indefinite term. In claim 1, lines 8, "the upstream wider portion", and at line 12, "the downstream narrower portion" are all without proper antecedent basis.

Also in claim 1, lines 12-13, "an overpressure relative to the environment" is indefinite and confusing term. Claims 2 and 3 <sup>are</sup> indefinite and confusing because it is not clear if the nozzle in claim 2 is the same as the nozzle of claim 3.

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In claim 4, lines 1-2, "the air pressure" lacks antecedent basis, and at line 2, "preferably" is indefinite term.

In claim 5, lines 1-2, "the air pressure" lacks antecedent basis, and at lines 2-3, "in particular steplessly so" is indefinite term.

In claim 6, lines 1-2, "pressurized water" lacks antecedent basis, and at lines 2-3, "a predetermined pressure" is indefinite term, because specific pressure has not been recited.

In claim 7, lines 1-2, "the water pressure" lacks antecedent basis, and at lines 2-3, "preferably steplessly so" is indefinite term.

In claim 8, lines 1-2, "the water pressure", and at lines 2-3, "the air pressure" are all without proper antecedent basis.

In claim 9, lines 1-2, "the air pressure", and "the water pressure" are all without proper antecedent basis.

✓ In claim 10, line 4, "the water becomes turbulent" is indefinite term because specific steps for producing the turbulent have not been provided. In claim 11, line 4, "the water pressure" and "the air pressure" are without proper antecedent basis, and at line 2, "on" should be deleted.

Claims 11-~~21~~ are indefinite and confusing, because it is not clear which water pressure and air pressure are related. Clarifications are required.

In claims 12-21, line 2, "on" should be deleted.

In claims 12-21, "the water pressure", and "the air pressure" are all without proper antecedent basis.

In claim 13, lines 5-6, "( )" should be deleted.

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Regarding claim 18, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim 1 provides for the use of a nozzle device, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 1 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: steps of cleaning the dirty surface. It is suggested that claim 1 should be changed to read "A method for cleaning a dirty surface, comprising the steps of:.....;.....;...;and ....."

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 154,836 (JP '836) or Elmore (3,140,050) or Meyer et al. (5,730,163). JP '836 teaches a method for washing substrates comprising atomizing pure water, and air into minute spray,

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and spraying then onto the surface to be washed. See the abstract, and Fig. 1. Elmore teaches a method and apparatus for cleaning and coating substrates by using atomized solution. See col. 1, lines 7-53, col. 2, lines 22-46, Fig. 1, and the document in general.

Meyer et al. teach a method for cleaning workpieces. See the abstract, col. 2, col. 3, lines 1-43, col. 4, line 4-col. 5, line 52, col. 6, lines 54-65, and the document in general.

JP '836 and Elmore and Meyer et al. do not teach the surface and the pressure ratios as claimed. It would have been obvious at the time applicant invention the claimed process to adjust the pressure ratios to obtain optimum results. It would have been obvious at the time applicant invented the claimed process to use the method taught by JP '836 or Meyer et al. Elmore for cleaning surfaces as claimed to improve the cleaning process.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (5,887,605).

Lee et al. teach a method and apparatus for cleaning a semiconductor, wafer. See the abstract, col. 1, line 50-col. 4, line 51. Lee et al. do not teach the pressure as claimed. It would have been obvious for one skilled in the art to adjust the pressure ratios to obtain optimum.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pennamen et al. teach method and apparatus for atomizing a liquid, particularly a highly viscous liquid, with the aid of at least one auxiliary gas.

Pacht teaches swive jet assembly. Rankin et al. teaches a rotating nozzle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zeinab El-Arini whose telephone number is (703) 308-3320. The examiner can normally be reached on Monday-Friday from 7:30 AM to 4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (703) 308-4333. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

*ZE 11/30/99*

El-Arini/mm

November 29, 1999

*Zeinab El-Arini*

**ZEINAB EL-ARINI  
PRIMARY EXAMINER  
GROUP 1300**